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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

COLIN, CARL G

ART UNIT

PAPER NUMBER

2136

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/697,304	Applicant(s) LEE ET AL.	
	Examiner Carl Colin	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. In response to communications filed on 7/1/2004, applicant cancels claims 2 and 10 and amends claims 1, 3-5, 8, 12, and 13. The following claims 1, 3-9, and 11-13 are presented for examination.

1.1 Applicant's arguments, pages 10-19, filed on 7/1/2004, with respect to the rejection of claims 1-13 have been fully considered, but they are moot in view of a new ground of rejection.

Specification

2. The abstract of the disclosure is objected to because the form and legal phraseology often used in patent claims, such as "means" should be avoided. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. **Claim 10** is objected to because it is dependent on claim 10, which is a canceled claim.

In order to avoid rendering the claim indefinite, appropriate correction is required.

Claim 5 is objected to because of the following informalities: the word "and" at the end of the claim should be deleted.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.1 **Claims 1, 3-9, and 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Non Patent Literature to **Mallet, P.W.**; "Considerations for Applying Disk Encryptors to Environments Subject to Hostile Overrun"; Computer Security Applications Conference, 1991. Proceedings, Seventh Annual, 2-6 Dec. 1991; 1991 IEEE; Pages: 218-222 in view of US Patent 5,457,748 to **Bergum et al.**

4.2 As per claims 1, 8, 9, and 11, **Mallet** substantially teaches a method for selectively denying access to encoded data, said method comprising the steps of: loading an encryption key into a mission planning workstation at a first location and connecting at least one media device to a mission planning workstation; loading an encryption key from a mission planning workstation into a media device, for example (see page 219 end of second column to page 220, first column; see also pages 220-221). **Mallet** also teaches using smart card and disk encryptors for key transport. **Mallet** discloses encrypting sensitive data using an encryption key and loading the encrypted data, for example (see pages 219-221); **Mallet** further discloses selecting data to be encrypted that meets the recitation of loading unencrypted data onto a media device wherein data necessary to enable a target computing device associated with a vehicle to return to a location selected as a mission end location remains unencrypted; **Mallet** discloses loading key to workstation or server having external or internal encryption device and also discloses using a disk encryptor and smart card for transporting key to a target environment for used on the disk encryptor that meets the recitation of disconnecting said media device from the mission planning workstation and connecting a media device to the target portable computing device, for example (see pages 219-221). **Mallet** discloses the limitation that keys should be kept out of a vulnerable environment, for example (see page 221, first column) that meets the recitation of deleting key from the media device in response to transporting the target portable and media device to a location physically distant from the mission planning workstation.

Although **Mallet** discloses key management key entry, change over and quick destruct by automatic destruction or responsive to an operator, **Mallet** does not explicitly disclose the

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transfer of keys from non-volatile to volatile memory to ensure the active erasure of keys from the volatile memory upon loss of power. **Bergum et al** discloses such concept, and discloses that keys can be deleted from volatile memory on the target device in the event of power loss to the target device or responsive to an operator, for example (see column 1, line 55 through column 2). **Bergum et al** also discloses powering up the target portable computing device, thereby enabling it to execute a desired program or process, for example (see column 5, line 50 through column 6, line 5); discloses protecting key against adversary for maximum security by erasing the key from the media device and maintaining key only in volatile memory after said deleting step that meets the recitation of deleting said encryption key from said media device in response to said transport step, for example (see column 3, line 62 through column 4, line 40);

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the inventive concept of **Mallet** to include the concept of transferring keys from non-volatile to volatile memory to ensure the active erasure of keys from the volatile memory upon loss of power as well as taught by **Bergum et al**. This modification would have been obvious because one skilled in the art would have been motivated by the suggestions provided by **Bergum et al** so as to ensure the active erasure of keys from the volatile memory upon loss of power.

As per claim 3, **Bergum et al** discloses the limitation of wherein the step of deleting the encryption key responsive to an operator overwrites the location in non-volatile memory where the encryption key previously resided a desired number of times, for example (see column 6, lines 30-38). Therefore, claim 3 is rejected on the same rationale as the rejection of claim 1.

As per claim 4, Bergum et al discloses wherein the step of ensuring that the encryption key is not resident in non-volatile memory on any media device, and discloses deleting key from the non-volatile memory automatically by triggering or manually by an operator, for example (see column 3, line 62 through column 4). Both references disclose key quick destruct depending on the environment. It is apparent to one skilled in the art that the step of deleting can be triggered by external source without departing from the scope and spirit of the invention disclosed by the combined references. Therefore, claim 4 is rejected on the same rationale as the rejection of claim 1.

As per claim 5, Mallet discloses selecting a key wherein the key comprises a number of bits sufficient to prohibit unauthorized person from breaking at a desired level of difficulty, for example (see page 220).

As per claim 6, Mallet discloses the limitation of wherein an operator of the target portable computing device has no knowledge of the encryption key used to encrypt data on the at least one media device in the encrypting step, and the encryption key is maintained at the home base mission planning workstation, for example (see page 221).

As per claim 7, Mallet discloses the limitation of wherein the step of selecting an encryption key selects a new key on a desired periodic basis, thereby minimizing a risk of compromise of a previously used encryption key, for example (see page 220).

Claim 12 contains some of the limitations of the rejected **claims 1, 5, and 9**. Therefore, **claim 12** is rejected on the same rationale as the rejection of **claims 1, 5, and 9**.

As per **claim 13**, Mallet discloses further comprising: means for communication between the mission planning computer and at least one media device and target portable computing device, wherein the at least one media device is connected simultaneously to both the mission planning computer and the target portable computing device prior to mission commencement and during data encryption, for example (see pages 222 and 221).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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5.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carl Colin whose telephone number is 571-272-3862. The examiner can normally be reached on Monday through Thursday, 8:00-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cc

Carl Colin

Patent Examiner

November 26, 2004

E. J. Moise
EMMANUELL L. MOISE
PRIMARY EXAMINER
11/11 2136